

REMARKS

The Examiner is thanked for the thorough examination of this application and the withdrawal of the finality of the previous Office Action. The present FINAL Office Action, however, has continued to reject all claims 1-20 under 35 U.S.C. § 103(a), using a variety of combinations of references.

Specifically, claims 1-3 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Beak (US 6,697,135) in view of Kim (US 5,693,285). Claims 11-12 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Bijlsma (US 20010045560) in view of Suzuki (US 6,801,274). Claim 13 is rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Bijlsma in view of Ahn (US 20010040665). Claims 4 and 8-10 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Beak in view of Kim, further in view of Watanabe (US 5,093,738). Claims 14-17 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Bijlsma in view of Suzuki, further in view of Brewer (US 4,876,165). Claims 14 and 18-20 are rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Bijlsma in view of Ahn, further in view of Watanabe. For at least the reasons set forth herein, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections.

In order to expedite the prosecution and allowance of this application, Applicants have claims 1-10 without prejudice or disclaimer of the subject matter defined therein.

Claim 11

Turning to claim 11, the Office Action rejected this claim under 35 U.S.C. § 103(a) as allegedly unpatentable over Bijlsma in view of Suzuki. Applicants respectfully disagree. In this regard, claim 11 recites:

11. A transfective liquid crystal display device implementing a color filter having various thicknesses, comprising:

a lower substrate having an insulating layer thereon;

a lower electrode formed on the insulating layer, wherein the lower electrode has a transmissive portion and a reflective portion;

a color filter having various thicknesses formed on the lower electrode, wherein the color filter has a first thickness portion and a second thickness portion, the first thickness portion is thicker than the second thickness portion, and the first thickness portion corresponds to the transmissive portion and the second thickness portion corresponds to the reflective portion;

a transparent organic planarization layer formed on the color filter;

an upper substrate opposing the lower substrate,

an upper electrode formed on the upper substrate; and

a liquid crystal layer interposed between the upper substrate and the lower substrate.

(Emphasis added.) Applicants respectfully submit that claim 11 patently defines over the cited art for at least the reason that the cited art (singly or in combination) fails to disclose or suggest at least those features emphasized above.

The Office Action admitted that Bijlsma fails to teach a planarization over the color filter, but alleged that Suzuki teaches an organic planarization layer (overcoat layer) formed over a color filter to protect color filter.

In fact, the color filter taught by Bijlsma is formed on an array substrate with an uneven surface structure (i.e., with concave and convex structures). Moreover, color filter of Bijlsma is formed by coating fluid color resist to achieve various thicknesses. Bijlsma's color filter, therefore, has an uneven lower surface and a planar upper surface, and is dependent on the substrate structure. As Bijlsma's color filter includes planar upper surface, there is no motivation for those skilled in the art to form another planarization layer on the Bijlsma's color filter, just to achieve a planar upper surface (as the planar upper surface already exists). Moreover, the coating fluid color resist of Suzuki will cause likely result in an unstable production yield.

In contrast, and as specifically claimed by claim 11, the layer formed on the color filter is

a "planarization layer..." (i.e., a layer that forms a planar surface over a non-planar surface). Accordingly, the protective coating of Suzuki does not disclose or suggest this element. It is therefore submitted that claim 11 is patentable. As claims 12-20 directly or indirectly depend from claim 11, claims 12-20 are patentable at least by virtue of their dependency from patentable claim 11.

As a separate and independent basis for the patentability of claim 11, Applicants respectfully submit that the Office Action has failed to cite a proper motivation or suggestion for combining the cited references. In this regard, the Office Action stated only that the combination would have been obvious because doing so "would allow more light to serve as a protective later." (Office Action, p. 4). This alleged motivation is clearly improper in view of well-established Federal Circuit precedent.

It is well-settled law that in order to properly support an obviousness rejection under 35 U.S.C. § 103, there must have been some teaching in the prior art to suggest to one skilled in the art that the claimed invention would have been obvious. W. L. Gore & Associates, Inc. v. Garlock Thomas, Inc., 721 F.2d 1540, 1551 (Fed. Cir. 1983). More significantly,

"The consistent criteria for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this [invention] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. ... Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure... In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill in the art is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention."

(*Emphasis added.*) In re Dow Chemical Company, 837 F.2d 469, 473 (Fed. Cir. 1988).

In this regard, Applicants note that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. Stiftung v. Renishaw PLC, 945 Fed.2d 1173 (Fed. Cir. 1991). Therefore, in order to sustain an obviousness rejection based upon a combination of any two or more prior art references, the prior art must properly suggest the desirability of combining the particular elements to derive a method of forming a color filter, as claimed by the Applicants.

When an obviousness determination is based on multiple prior art references, there must be a showing of some "teaching, suggestion, or reason" to combine the references. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ2d 1378, 1383 (Fed. Cir. 1997) (also noting that the "absence of such a suggestion to combine is dispositive in an obviousness determination").

Evidence of a suggestion, teaching, or motivation to combine prior art references may flow, inter alia, from the references themselves, the knowledge of one of ordinary skill in the art, or from the nature of the problem to be solved. See In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be "clear and particular." Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617.

If there was no motivation or suggestion to combine selective teachings from multiple prior art references, one of ordinary skill in the art would not have viewed the present invention as obvious. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998);

Gambro Lundia AB, 110 F.3d at 1579, 42 USPQ2d at 1383 (“The absence of such a suggestion to combine is dispositive in an obviousness determination.”)

Significantly, where there is no apparent disadvantage present in a particular prior art reference, then generally there can be no motivation to combine the teaching of another reference with the particular prior art reference. Winner Int'l Royalty Corp. v. Wang, No 98-1553 (Fed. Cir. January 27, 2000).

In combining Suzuki with Bijlsma, the Office Action stated only that the combination would have been obvious because doing so “would allow more light to serve as a protective layer.” However, merely identifying some benefit (from hindsight) that results from a combination is not sufficient to justify the combination, and the motivation or suggestion must come from the prior art itself, and the Office Action has failed to identify such a motivation. Indeed, this rationale would permit the Patent Office to combine Suzuki with ANY reference that may benefit from a protective layer. Clearly, such a broad omnibus application of Suzuki is not properly supported by the prevailing legal precedent from the Federal Circuit. For at least the additional reason that the Office Action failed to identify proper motivations or suggestions for combining the various references to properly support the rejections under 35 U.S.C. § 103, those rejections should be withdrawn.

For all of these reasons, Applicants submit that this application is now in condition for allowance. Prompt issuance of a Notice of Allowance is earnestly solicited.

No fee is believed to be due in connection with this amendment and response. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,



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